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FUEL CELL SYSTEM AND METHOD FOR REMOVAL
OF WATER FROM FUEL CELLS

ABSTRACT OF THE DISCLOSURE

A fuel cell system is provided which generates electricity by supplying fuel gas and oxidant gas to a fuel cell stack comprising a fuel cell stack, a DC power supply, and a controller. The DC power supply comprises at least one of a generator and battery. The controller is programmed to determine whether or not the fuel cell stack is generating electricity, and to supply current to the fuel cell stack by at least one of the generator and the battery when generation of electricity by the fuel cell stack is terminated. The current supplied to the fuel cell stack removes residual water in the fuel cell stack by electrolytically reducing the water into hydrogen and oxygen gasses which are subsequently purged from the fuel cell stack.